

Unintended Consequences

In Bruce Nussbaum’s 2011 article entitled “Is Humanitarian Design the New Imperialism?” he expresses frustration with the assumption made by Westerners that they can show up in some radically different culture and help them solve their design problems.¹ He aptly asks “...[M]ight Indian, Brazilian and African designers have important design lessons to teach Western designers?” His points are valid, but these concerns are not new.

THE NEW IMPERIALISM

In 1998, Monsignor Ivan Illich addressed this new imperialism in his seminal talk “To Hell With Good Intentions” which was presented to the Conference on InterAmerican Student Projects in Cuernavaca, Mexico.² Speaking to a group that was planning on volunteering in Mexico, he stated:

“By definition, you cannot help being ultimately vacationing salesmen for the middle-class ‘American Way of Life,’ since that is really the only life you know. A group like this could not have developed unless a mood in the United States had supported the belief that any true American must share God’s blessings with his poorer fellow men. The idea that every American has something to give, and at all times may, can and should give it, explains why it occurred to students that they could help Mexican peasants “develop” by spending a few months in their villages.”

A group of American college students made a film in 2011 entitled “What Are We Doing Here” in which they spent several months traveling through Africa visiting the Millennium Development Cities and sharing their revelations.³ They had read about the great plans behind the Millennium Development Goals, but the realities were very different. They came face to face with some of the blatant lies and manipulation that are behind the creation of the image of Africa that is common in the United States.

All of these examples and many more are essential resources for anyone traveling to an impoverished community to do Architecture or any sort of “outreach.” Any student or faculty member who is involved in this type of experience needs to be exposed to and engaged with essential resources on global aid, partnerships and outreach. Those involved in international design projects must recognize the dangers of the New Imperialism.

THE BEST OF INTENTIONS

I have led trips to East Africa five times over the last six years. We travel late in the semester after several weeks of classwork, reading and research. These trips are an incredible

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opportunity for the students but they require a critical assessment of the complex history of colonialism and imperialism that precedes us.

As middle class Americans, we have been brought up in a society that encourages independence and individuality and a sense that we can save the world. This often translates to arrogance and naiveté on the part of the American student (and sometimes faculty) traveling abroad.

I have taught three graduate architecture studios on the Roche Health Center project in rural Tanzania and three interdisciplinary Honors seminars entitled “Humanitarianism: Design Thinking Across the Disciplines.” I have taken thirty students to Nairobi, Kenya and rural Tanzania as part of the travel abroad that accompanies the Humanitarianism seminar. I have also been peripherally involved in several other faculty travel programs and have seen what transpires when students (or faculty) are not prepared to engage with people in impoverished communities.

I have approximately 40 applicants for the Humanitarianism course and I accept 10–12 students. I personally interview each student to ascertain whether they are a good fit for this class and specifically for our two-week trip to Kenya and Tanzania. I interview them with the goal of understanding what their intentions are for this course and whether they will have a positive experience on the trip.

I ask several questions during the individual interviews, but the most illuminating prompt is the following: “Describe a situation in which you felt like a minority.” Some respond with a blank stare, some clearly indicate no comprehension of their status while others openly share their recognition that their typical experience of privilege is not consistent across the globe. Students who are able to embrace the opportunities and challenges of being a minority are most likely to benefit from this type of experience.

There is no question that there are significant risks and that there is potential to be part of “the New Imperialism” when taking students abroad to do design/build work. But, these experiences have greater potential for success when there is recognition that we have much more to learn than we have to teach. We must come to terms with our intentions for doing this work and we must begin with the realization that we will make mistakes along the way.

Figure 1: University of Cincinnati Humanitarian Design students at Roche Health Center with Village Life Outreach Project, March 2015

Students must come to terms with the social, religious and political history of this place and the unintended consequences of those who have come before us.

I begin the Humanitarianism seminar by asking the students why they want to travel to Tanzania. Inevitably, their answer revolves around the notion of wanting to “help others.” This common attitude is inherently patronizing and potentially damaging for those with whom they will interact in Tanzania. It is my responsibility to prepare the students to engage a culture that has a history of British and German rule. It is only through critical theoretical reading and dialogue that we are able to shift from a self-centered position to one in which the student can openly learn from all that they are experiencing while on this trip.

We address the notion of “helping” or “serving” through several discussions, but I start by asking them to imagine their response if someone from another country, who has never been to the US, showed up and told us that they are here to “help us.” They quickly recognize how offensive and patronizing that would be. This discussion begins to reposition the students’ attitude on teaching and learning and begins dialogue on the importance of being mentally and emotionally conscious of all that is occurring when they step foot in East Africa.

Many of these students have previously traveled abroad on mission trips with their church. I openly challenge the students’ claim that they want to “serve others.” This concept has its roots in religion and is often aligned with the fervor of those who believe that by converting others to their religion, they are doing something good. This is one of the most insidious forms of colonialism. There is an 80-year history of a Mennonite traditions intertwined with strong Luo tribal traditions in this region. The students learn about the complexities of religion within Tanzania and encouraged to accept that proselytizing is not acceptable in this context.

I challenge the students to ask themselves why they want to spend this money, travel great distances and live in uncomfortable conditions. It is essential to understand why we personally choose this type of experience. If the true desire was simply to “help others”, they could volunteer at a local homeless shelter and donate the funds for this trip to a local organization. I challenge them to be honest with their intentions. It is important to recognize that the desire to help others is the result of other, more personal desires.

THE ROLE OF THEORY

We rely on critical theoretical perspectives and personal interviews to help us understand the issues inherent to a trip to East Africa. We do interviews with individuals from East Africa before traveling and we watch many previous interviews done with community members in the villages where we will be traveling. We read several different perspectives including William Easterly, Paul Farmer, Wangari Matthai, Dambisa Moyo, Victor Papanek, Paul Polak, Amos Rapoport and E.F. Schumacher. The first reading is Greg Mortensen’s bestseller *Three Cups of Tea* followed by Jon Krakauer’s critique *Three Cups of Deceit*.

One essential reading is William Easterly’s book *White Man’s Burden*, in which he differentiates two fundamental approaches to foreign aid—planners and searchers.⁴ Planners see development as large-scale technical problems that can be fixed at an administrative level (i.e. World Bank). Planners make big plans, but have no accountability. Their goals are rarely achieved and no one takes responsibility. The failures of the Millennium Development Goals are one commonly cited result of Planners.

In contrast, searchers are those who are working directly with local communities as partners to collaborate on projects that are beneficial to all involved. I firmly believe that international design/build projects must be addressed from the perspective of “searchers.”

“A planner thinks he already knows the answers; he thinks of poverty as a technical

engineering problem that his answers will solve. A searcher admits he does not know the answers in advance; he believes that poverty is a complicated tangle of political, social, historical, institutional, and technological factors. A searcher only hopes to find answers to individual problems by trial and error experimentation. A planner believes outsiders know enough to impose solutions. A searcher believes only insiders have enough knowledge to find solutions, and that most solutions must be homegrown.”⁵

—William Easterly

Easterly’s definition of searchers provides a helpful tool for students as they begin to assess how they can effectively engage projects with local community members in Tanzania. Each of the authors that we read in class provides another perspective and, by the end of the semester, the students can debate situations from these differing theoretical perspectives.

VILLAGE LIFE OUTREACH PROJECT

Village Life Outreach Project is a non-profit based in Cincinnati that has been working with communities in rural Tanzania since 2004. I became involved with Village Life in 2008 because the Tanzanian community with whom they work had identified the need for a clinic. The organization is secular and they are focused on providing learning experiences for those who are traveling from the US and support for three Tanzanian communities through partnerships in Tanzania. I have traveled to Tanzania five times since 2008 and worked closely with the community in the development of the Roche Health Center. The project has been an ongoing exploration of discoveries and lessons about design, construction, technology, community, and the culture of the Luo people of Tanzania.

I have chosen to overlap my teaching and research in humanitarian and public interest design with the work of the non-profit Village Life Outreach Project. Village Life is supported by the University of Cincinnati and there are ongoing Village Life projects that the students in my classes can become engaged with. There are many benefits to working with an ongoing project.

PARTNERS ON THE GROUND

All international design/build has the potential for unintended damage but the opportunities for success improve when there are local partners, long-term commitments and goals of learning from those with whom we are interacting. These are the values of the non-profit Village Life Outreach Project with whom we partner for our trips to Tanzania.⁶

In *White Man’s Burden*, Easterly points out that while planners tend to stay home and make grand plans, searchers partner directly with local individuals or organizations. This is a critical factor in any proposal for international travel abroad. There must be a local partner who comes from that specific place, speaks the local language(s) and is able to navigate all of the social and political dynamics that are inherent in this type of work.

In our Humanitarianism class, we work directly with the leadership of Village Life Outreach Project. They work closely with the Shirati Health, Education and Development Foundation (SHED), a Tanzanian NGO which is run by a couple that includes a man whose family has lived in that region for generations. His wife is an American-born and American-trained doctor who has lived in Tanzania for over three decades and has raised three children in rural Tanzania. Together, they are able to navigate the complex social dynamics within the communities and local governmental organizations with whom we work. We still make many mistakes, but without having local relationships, we would have no context by which to assess what works and what does not.

LONG-TERM COMMITMENTS

Village Life has been working with three villages in rural Tanzania since 2004 and has no intention of leaving unless the community no longer seeks to continue the relationship. Village Life leads two “brigades” to Tanzania each year: The first trip, in autumn, is a medical trip with faculty and students of medicine and nursing leading acute care clinics and taking part in ongoing medical research with local health care providers. The second trip is in the spring and includes a diverse group of people, including me and the students in my Humanitarianism class.

As a member of Village Life, I am often asked if we plan to expand our work to other villages or other countries. The success of the organization comes from a long-term relationship with the people in these specific communities. All of our work is the result of direct requests from the residents of these villages. Village Life is not seeking to go elsewhere unless they are no longer wanted in these three communities. The partnerships and research are constantly evolving to local conditions and we feel strongly that to spread to other locations would only diminish the quality of the work and the relationship with the community.

The lessons that we have learned through seven years of research, design evolution and construction innovations have been extremely exciting for us and for the residents and local contractors with whom we are collaborating. We have learned a tremendous amount about rural construction in Tanzania, but we are not actively trying to go into other villages to share what we have learned. Instead, we are collaborating with local contractors and villagers to disseminate the construction techniques that we have collectively discovered. We are also working with the regional governmental agencies to share what we have learned in hopes that they will seek better quality, higher performance buildings once they see that their residents have been able to build them.

LESSONS FROM A TANZANIAN DESIGN/BUILD PROJECT

In 2007, the Roche community shared their need for a permanent health care facility with the leaders of Village Life. The community identified a piece of land in the Roche and I traveled to Tanzania in October 2008 to get acquainted with the people, culture and site where we would be building this facility. I have been leading the design and construction of the Roche Health Center since 2008.⁷ This is a very slow process that has involved hundreds of the residents of Roche Village. The first building was a clinic which opened in 2011 and we are nearing construction of a duplex housing unit for a doctor’s family and a nurse’s family.

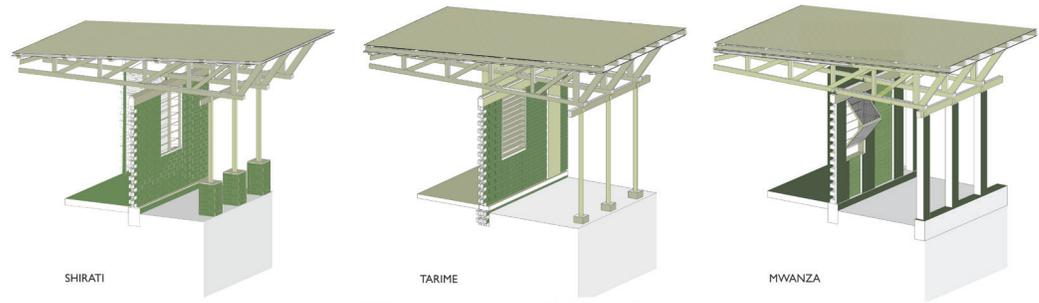
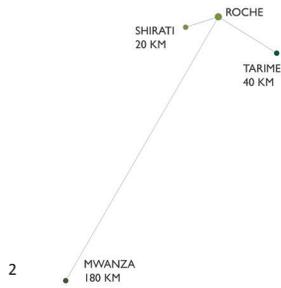
Our ongoing design and construction in Tanzania has led to many different types of innovations from the technical approaches to building safely in a seismic region using local materials and construction to the more prosaic lessons learned by working with villagers whose relationship to their materials and their land offers inspiration for all western designers.

Before initially traveling to Tanzania in 2008, I worked with graduate students to do extensive research on all aspects of life in the Mara region—historical, political, economic, social, construction techniques, materials, and many other factors. One thing that quickly became apparent was that the local post-colonial masonry construction was not faring well with the seismic conditions in the region. There is no power and limited access to water. Few materials are available and most are not affordable to the local residents. All decisions that we made evolved from the need to propose solutions that would be viable for all residents of the community.

APPROPRIATE TECHNOLOGY

“Technology is considered thus ‘appropriate’ to the extent that it is consistent with the cultural, social, economic, and political institutions of the society in which it is used.”⁸

—Andrew Conteh



We study the principles of appropriate technology as a means to understand how to approach design in a context that is radically different from ones own. This is especially relevant in the design studios. In those contexts, I have the students use the limited material palette that is available in Tanzania for full-scale mock-ups of elements they are studying.⁹

It is common for men in Luo villages to build their own homes. The material palette available to them depends on how far they can travel and in 2008, very few people had any form of transport other than a bicycle. The principle of appropriate technology helped us realize that the distance that any given builder could travel for materials would influence all of our design decisions. We referred to this as “reproducibility”—the potential for any given person to reproduce the construction techniques being developed on this project in the construction of their own home.

Another example of appropriate technology was evident during our initial research when we learned an important lesson about cultural conditions of environmental responses. We had completed basic climatic analysis of the region based on our thermal comfort conditions (70°–75°F) but we soon realized that the thermal comfort zone of a local Tanzanian was much higher since their lowest temperature was approximately 60°F. This realization led to a decrease in the amount of cross ventilation that we had initially designed for because they desired far less passive cooling than the typical american.

One challenge in local concrete construction was the result of rebar not being held back sufficiently from formwork. The spalling that result was found in numerous examples throughout the region. We explained to the builders that a 1–1/2" distance between the rebar and the formwork was essential. They then developed a jig by attaching pieces of old concrete at that thickness to the interior of the formwork. We found great inspiration in this type of problem solving.

Every day that I spent on-site working with the local builders provided new revelations about a design/build process that evolved from an open dialogue with local materials, skills, tools and traditions.

LEARNING FROM LOCAL MATERIALS

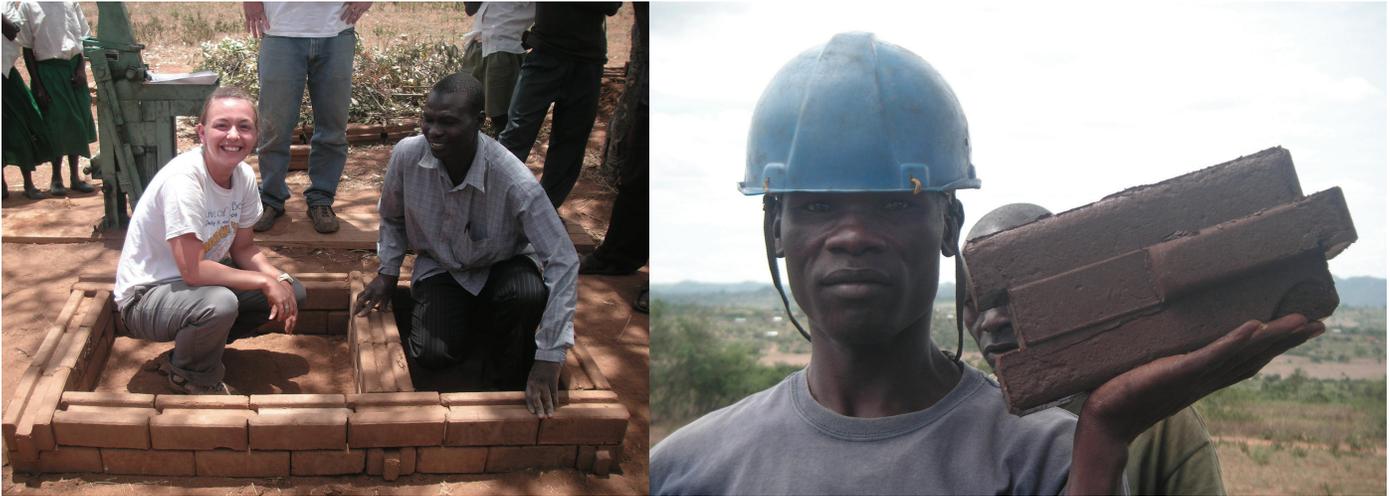
Our initial analysis of buildings in the region clarified that there were two distinct building types in the rural areas—round or square huts built from a local tree called sisal (similar to bamboo) with mud walls or rectangular masonry buildings that were built to look like the English and German buildings that had been built in the early 20th century under Colonialism. The original buildings were built with high quality materials that were imported. The recent masonry buildings were locally built using a very unstable kiln-dried brick, undersized trusses and tin roofs. These buildings were not holding up well given the heavy rains and the seismic conditions in the region.

Our conversations with the community clarified that they wanted masonry buildings, so we



Figure 2: Reproducibility diagrams of material availability in Shirati, Tarime and Mwanza, Tanzania

Figure 3: Photograph of rebar offset jig, March 2015



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explored options for building safer buildings with masonry construction. We discovered the hand-powered Interlocking Stabilized Soil Block (ISSB) Press which was used throughout West Africa and had recently been introduced into Kenya. During the 2008 trip, we were able to test an ISSB press which would allow local residents to make a pressed brick using no power tools and a minimal amount of cement. Based on a very positive response from the Roche community, we purchased an ISSB press built in Kenya by Makiga and had it shipped from Kenya to Tanzania. A group of Kenyans from Makiga came to work with the members of Village Life, SHED and several residents from Tanzania who would eventually become the experts on the ISSB blocks.

One of my University of Cincinnati graduate architecture students, Emily Roush, traveled to Tanzania soon after the ISSB purchase in 2009 to research how the bricks would be detailed and how corner, beam and column conditions would be resolved. Before she left, we prefabricated several inserts that could be placed within the press to create reveals where needed. Emily tested these inserts with Matthieu, one of our brick experts. Matthieu watched in amusement as these attempts failed again and again. Eventually he shared another approach which was evident to him because of his openness to the physical characteristics of the material.

By working closely with the material, Matthieu had an inherent sense of its level of plasticity when it came directly out of the press. He simply used a knife to cut off pieces of the pressed brick while it was still wet from the press. This was a very effective and simple solution that hadn't occurred to us while we were brainstorming in our studio in Cincinnati.

LEARNING FROM THE LAND

We needed accurate site data to get started with any sort of schematic proposal for the health center. Given the rural location, there were no records or site maps on file and this was before Google Maps had any maps of the region. I brought a hand held GPS with me with hopes of traversing the site boundaries so that I could translate this data into a site map in CAD. When I saw the site, I realized that there were no specific characteristics that would allow anyone to identify site boundaries other than the road at the northern edge.

I had three different local residents walk the perimeter of the 21-acre site with me on three different days. Each time I tracked our path with my GPS. As we walked the 1.2 mile perimeter of the site boundary, we would take sharp turns or slight angles with no apparent markers that were defining our route. When I downloaded the data from the three separate perimeter walks, I was shocked to find that they were within inches of being exactly the same path.

Figure 4: UC student Emily Roush working with Roche masonry expert Matthieu, October 2009



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The typical architecture student, faculty member or practitioner does not spend much time on the land where they will be designing. The members of the Roche community spent their lifetime on this land. They shared incredible stories of their ancestors arriving to this particular piece of land. The land has a meaning in their consciousness which extends far beyond our typical quantitative analysis of topography, soil conditions and foliage. While I have a deep appreciation of nature and landscape, I had never realized how minimally we understand the actual land where we design and place buildings. This kind of lesson resonates in many ways for anyone who is prepared and open to learning when traveling abroad

Figure 5: photograph of Roche leaders introducing the author to the Roche Health Center site and the contours which were measured by the UC team, October 2008

ENDNOTES

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